

Road Status Information and NordicWay

Ane Dalsnes Storsæter
Tomas Levin


09.03.2017






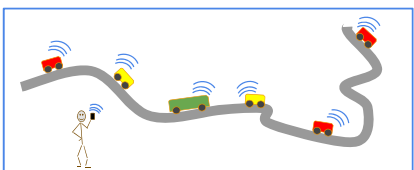
Tradisjonell trafikkdata










Alt er oppkoblet - Tingenes internett





Moderne datafangst








Road Status Information-prosjektet


- Oppstart høsten 2014 etter invitasjon fra Sverige
- Utgangspunkt: Kan bilen gi god nok informasjon om føreforhold til at det kan brukes til å effektivisere vinterdrift?








Road Status Information
Concept




Probe Vehicle Data
Cooperative ITS

Live large-scale test of cooperative ITS with road friction as case






Road Status Information Strategy




- Cooperation with research facilities and universities
- Modern methods of data capture and storage
- Focus on privacy

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Photo: Ane Dalsnes Storsæter




Road Status Information Cooperation



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Photo: Tomas Levin



Connected safety Functions @ Volvo Cars



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Base Technologies



Mobile network (3G, 4G)

- Vehicle ↔ Cloud database





Automotive Wifi (C2C standard)

- Vehicle ↔ Vehicle
- Road side unit ↔ Vehicle



The Idea

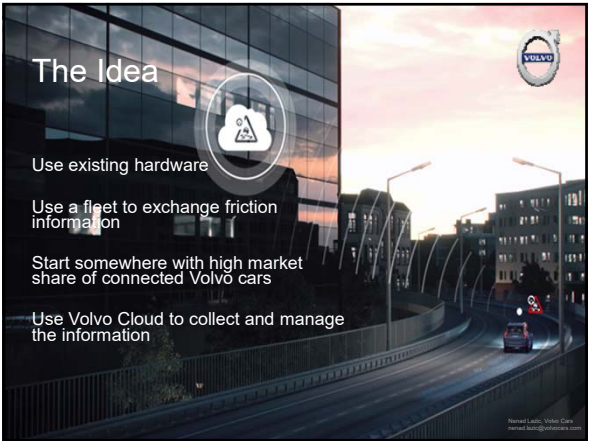


Use existing hardware



Use a fleet to exchange friction information

Start somewhere with high market share of connected Volvo cars

Use Volvo Cloud to collect and manage the information








First Application



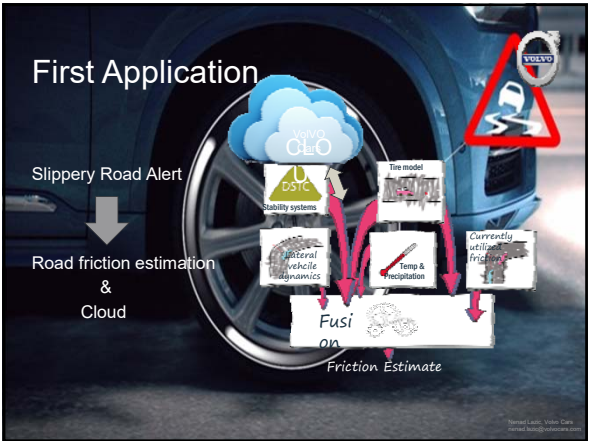
Slippery Road Alert

Road friction estimation & Cloud




Fusion

Friction Estimate



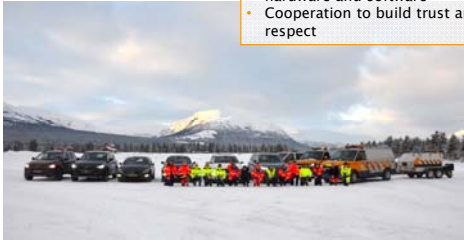




Road Status Information


Why participate actively in testing?

- Risk management – securing data capture
- First hand knowledge with regards to hardware and software
- Cooperation to build trust and respect



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Road Status Information

Why participate actively in testing?

- Local testsite at Bjorli
- Excellent facilities and support
- Not at secret location!



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Slide 13

SAD1 Viktig at denne typen informasjon er koblet til retning (oppstrøms) og riktig rute
Storsæter Ane Dalsnes; 01.09.2015

Repeatability

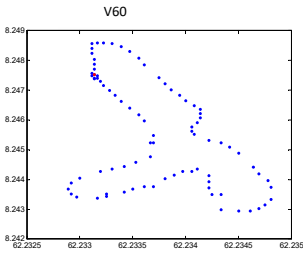


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Repeatability

- GPS data

2 laps

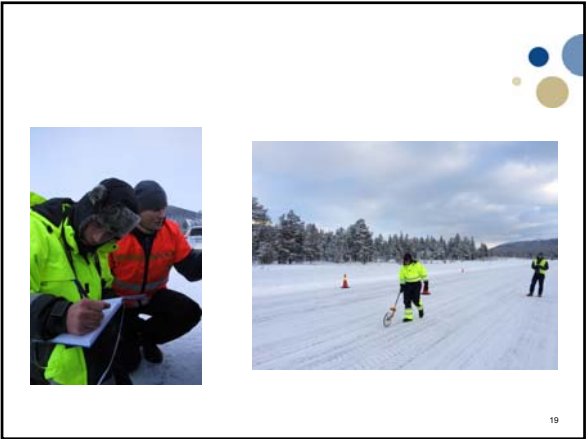


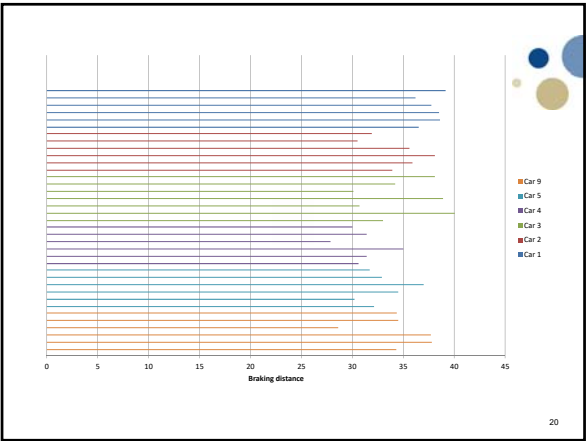
17

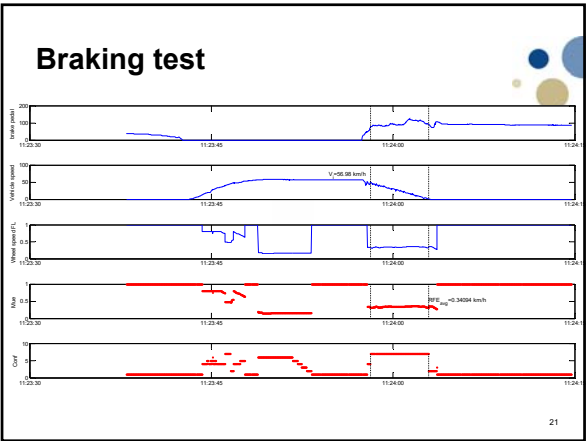
Braking tests

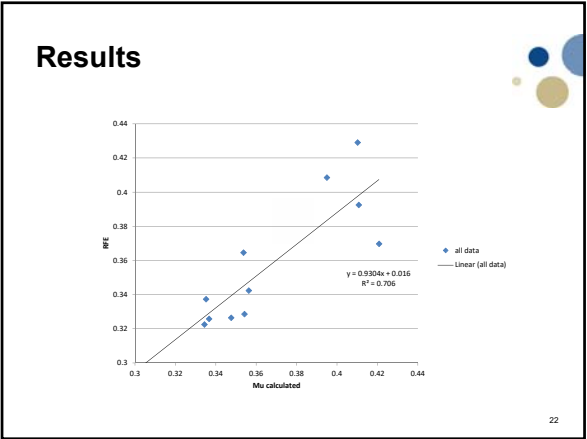


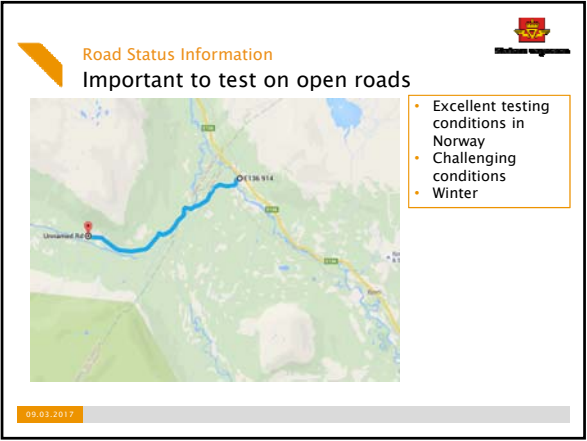
18

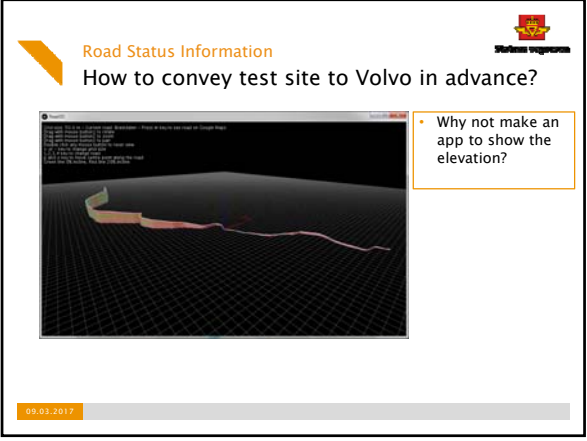













Road Status Information

Important to test on open roads




- Very different conditions going uphill or downhill for calculating friction

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Outside Abels gt. 5 Vegdirektoratet in Trondheim

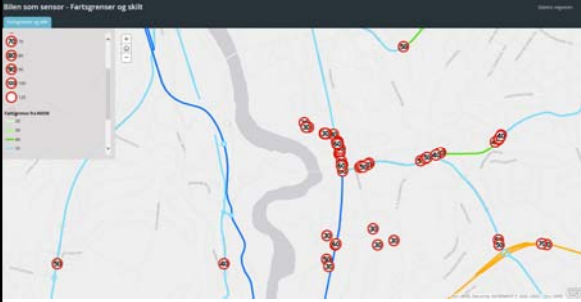
- Random data - NOT a dedicated test
- Looks promising - should we pursue?



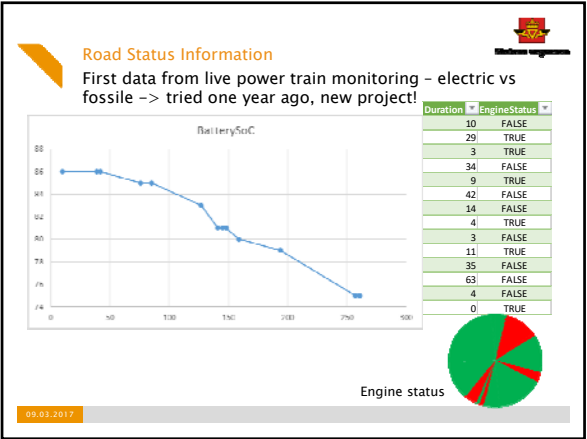
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Outside Abels gt. 5 -> NVDB developed GUI



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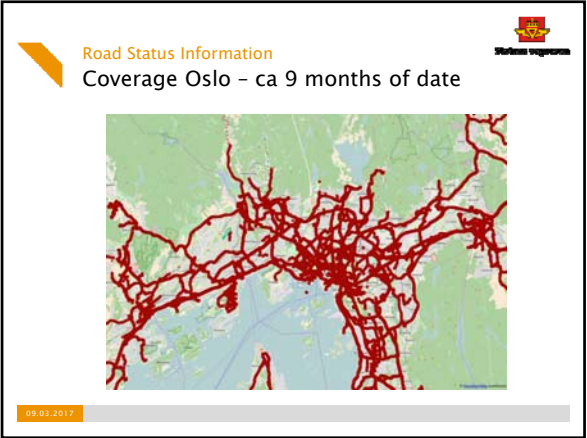
Road Status Information

Car fleet – large-scale applications

- Today: Rebuild fleet after a few issues
- Access to cars in Sweden, approximately 220+ cars
- Ramp-up during 2016 and 2017 – goal: 500 cars in Oslo + Gothenburg area
- From test to production systems through cooperation with car manufacturer

Photo: Ane Dalsnes Storsæter

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NordicWay

Thank you!



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Photo: Ane Dalsnes Storsæter / Erling Berg-Tesdal
